



NATIONAL HEALTH SECURITY PREPAREDNESS INDEX



111 Washington Avenue, Room 201
Lexington, KY 40536-0003
859.218.2029
859.257.3748 fax
www.nhspl.org

National Health Security Preparedness Index for 2017

Response to Call for Measures

September – October 2016

Prepared by:

Glen P. Mays, PhD, MPH^{1,2}
Michael Childress, MS³
Dominique Zephyr, MS⁴
Chris Bollinger, PhD³
Anna Goodman Hoover, PhD^{4,5}
Ann V. Kelly, MHA¹
Nurlan Kussainov, MPA¹

From the Program Management Office for the National Health Security Preparedness Index, including: (1) the Center for Public Health Services and Systems Research, Department of Health Management and Policy, University of Kentucky College of Public Health; (2) the Center for Health Services Research, University of Kentucky College of Medicine; (3) the Center for Business and Economic Research, Department of Economics, University of Kentucky Gatton College of Business and Economics; (4) the Applied Statistics Laboratory, Department of Statistics, University of Kentucky; (5) the Department of Preventive Medicine and Environmental Health, University of Kentucky College of Public Health.

Submitter			Recommendation	
Name	Title	Organization	Type	Measure Name
Mary Leinhos	Scientific Program Official	CDC (The Centers for Disease Control and Prevention)	New measure	Percentage of one-person households
Author and source of the measure (if different from Submitter):				
This was discussed at the Office of the Assistant Secretary for Preparedness and Response (ASPR) Hurricane Sandy Research meeting in August 2015. If there is interest in following this up, I can try to trace back to the source.				
Description of the measure:				
Percentage of households consisting of only one person. This is a measure of social ties and social capital, of the ability to rely directly and easily on other persons for routine or emergency assistance due to spatial and communication proximity of interpersonal relationship.				

Submitter			Recommendation	
Name	Title	Organization	Type	Measure Name
Kyle Moppert	Medical Entomologist	The Louisiana Department of Health (LDH) Office of Public Health's (OPH)	New measure	Mosquito Control
Author and source of the measure (if different from Submitter):				
West Nile Virus in the United States: Guidelines for Surveillance, Prevention, and Control - 4th Revision, June 14, 2013 http://www.cdc.gov/westnile/resources/pdfs/wnvguidelines.pdf				
Description of the measure:				
Areas of state covered by surveillance based and non-surveillance based mosquito abatement; Number of Surveillance-based Mosquito Abatement Districts; State's Arboviral Lab's funding/capacity/normal utilization; Are State Surveillance Standards established yearly? If you are discussing West Nile, ZIKA or other Arboviruses, the State's ability to protect its population is a critical factor.				

Submitter			Recommendation	
Name	Title	Organization	Type	Measure Name
Sheri Hester	Project Manager	Oak Ridge Associated Universities (ORAU)	New measure	Human Needs Index
Author and source of the measure (if different from Submitter):				
The Salvation Army produces a Human Needs Index (HNI) quarterly at the national, regional, and state level: http://humanneedsindex.org/ .				
Description of the measure:				
The HNI provides the trends in poverty and vulnerability. In constructing the HNI, four key components (Food Security, Clothing Assistance, Health/Well-Being Services, Housing/Shelter Assistance) were identified that, taken together, allow the Salvation Army to measure dimensions of human need in a given geographic area.				

Submitter			Recommendation	
Name	Title	Organization	Type	Measure Name
John R. Eubank	Inventor of the patent: Pat. No. 7612680	LifeSavingAdvice, LLC	New measure	Life Saving Advice
Description of the measure:				
<p>The constant updating and embedding of critical content into the memory on every electronic device. Much like a weather app, this native app on every electronic device would provide the needed and necessary geospatial info to increase one's success in the event of a disruption in service caused by a disaster, emergency, or simply overloading the network. In place of temperature, forecast of rain, wind, and humidity, our native app on every device would provide the location of, and directions to shelters, hospitals, evacuation routes and more. Every time this EM info was updated, a notification would be sent to the subscriber stating: their smartphone just got smarter with the info they never knew they'd need until they need it most.</p>				

Submitter			Recommendation	
Name	Title	Organization	Type	Measure Name
Sneha Patel	Acting Director of Evaluation	NYC Department of Health and Mental Hygiene	Modified measure	M501 Percent of population served by a comprehensive public health system (scope of services and inter-organizational connectedness)
Description of the measure:				
<p>Proposed modification: percent of vulnerable population served by a comprehensive public health system (scope of services and inter-organizational connectedness). Rationale: Disaggregation of data to account for vulnerable populations would allow for tracking of health equity. Identifying inequities would enable jurisdictions to allocate resources towards areas that face disproportionate risks and barriers to health security.</p>				

Submitter			Recommendation	
Name	Title	Organization	Type	Measure Name
Elizabeth Battaglia	Executive Vice President	TOMI Environmental Solutions	New measure	Does your (state public health) laboratory provide pre-positioned mobile chemical/biological decontamination technology to prepare and respond to disease outbreaks and chemical attacks and exposure events?
Author and source of the measure (if different from Submitter):				
Dr. Halden Shane, Council of State and Territorial Epidemiologists (CTSE) member, CEO of TOMI Environmental Solutions, Inc.				
Description of the measure:				
Does your (state public health) laboratory provide pre-positioned mobile chemical/biological decontamination technology to prepare and respond to disease outbreaks and chemical attacks and exposure events? Prepositioning of biological/chemical response technology, either through purchase of equipment or service contract with a local provider, allows to state health laboratories to protect staff and materials and prevent spread in the event of a chemical attack or infectious disease outbreak. Portable equipment with confirmed efficacy against known and emerging pathogens, as well as chemical weapons can contain quickly respond to threats or confirmed outbreaks/events, to decontaminate equipment, ambulances, personal protective equipment (PPE) and spaces without need to precondition space to specific humidity/temperature, or to turn off heating, ventilation and air conditioning (HVAC). This measure is of critical importance as a positive response will mean the health agency is prepared and has the resources/capability to minimize adverse health consequences in the event of a chemical or biological incident or infectious disease outbreak. This measure can be applied equally across public health agencies in all US states and territories and does not duplicate any other measure in the index. Validated chemical/biological response technology is available in the marketplace and data would be open and accessible.				

Submitter			Recommendation	
Name	Title	Organization	Type	Measure Name
Miguel A. Cruz	Public Health Emergency Operations Officer	CDC (The Centers for Disease Control and Prevention)	New measure	State health agency has at least a level 1-2 designation to test for chemical threats
Author and source of the measure (if different from Submitter):				
CDC Website https://emergency.cdc.gov/lrn/chemical.asp				
Description of the measure:				
Having state capacity for testing of chemical threats allows a faster detection of a number of chemicals of public health concern				

Submitter			Recommendation	
Name	Title	Organization	Type	Measure Name
Francesca C. Music	Program Director, Health and Medical Policy	Department of Defense; OASD(Homeland Defense & Global Security)	Modified measure	IMAAC-Incident Management-Multiagency Coordination: Mass Fatality Management

Description of the measure:

Degree to which State has a Mass Fatality Management plan in place that accounts for all operational elements of a local/State mass fatality management incident. Rationale: Officials who attended the Hidden Peril Table Top Exercise (2014), sponsored by Department of Defense (DoD) at the National Defense University, and attended by federal, state, and local representatives (e.g. Health and Human Services (HHS), The Department of Homeland Security (DHS), Federal Emergency Management Agency (FEMA), Veterans Affairs (VA), National Guard, State Emergency Management, and Public Health staff, local/city representatives, and fatality management subject matter experts (e.g., Medical Examiners/Coroners, funeral home directors) and professional associations (e.g., National Funeral Home Association), concluded mass fatality management preparedness, planning and response for all hazards is a national gap. State level plans that accommodate each state's perception of mass fatalities should be developed to coordinate multi-agency response and establish an understanding of available and needed response resources. Note: Fatality management was included in the Index about 1 year or so, ago, however, it was subsequently dropped, to our surprise. DoD thinks it is an important aspect of national preparedness (PPD-8; ESF-8 of the National Response Framework), and should be included as a specific measurement within the Index. Some states (e.g., New York) have mature plans; others do not. The Index could prompt states without plans, or immature plans, to develop them. In addition, federal response assets for mass fatality management are very limited and funding has not been made available for this.

Submitter			Recommendation	
Name	Title	Organization	Type	Measure Name
Robert Salesses	Deputy Assistant Secretary of Defense (Homeland Defense Integration and Defense Support of Civil Authorities)	Department of Defense, Office of the Assistant Secretary of Defense (Homeland Defense & Global Security)	New measure	Degree to which each State has a healthcare sector, critical infrastructure plan preparing and protecting them from cyber-attacks.

Author and source of the measure (if different from Submitter):

Recent cyber events.

Description of the measure:

The healthcare sector is dependent on cyber/IT capabilities to share information (e.g., patient data, health/medical systems) and for direct patient care procedures (e.g., automated/IT equipment vital for patient care). Cyber-attacks on U.S. systems is increasing in number and could disrupt healthcare systems in local, State, and federal jurisdictions, and throughout regions or across the country (nationally). Cyber-attacks could also affect patient care; some medical equipment is automated and IT dependent. Other critical infrastructures (e.g., energy, water, supply systems, logistics/transportation) that affect healthcare can also experience cyber-attacks and disrupt the U.S. healthcare system. Cyber-attacks can affect the national health security and the national security of the United States. Recent cyber-attacks in the United States strengthen justification for including this as a NHSPI measure.

Submitter			Recommendation	
Name	Title	Organization	Type	Measure Name
Marcy Barnett, REHS, CEM	Emergency Preparedness Liaison	California Department of Public Health Center for Environmental Health	New measure	{Number of} environmental health specialists {per 100,000 population}
Description of the measure: {Number of} environmental health specialists {per 100,000 population} More Environmental Health And Safety (EHS) in a community, the more health protection and preparedness expected.				

Submitter			Recommendation	
Name	Title	Organization	Type	Measure Name
Marcy Barnett, REHS, CEM	Emergency Preparedness Liaison	California Department of Public Health Center for Environmental Health	New measure	State has a written radiological emergency plan that includes activation of centers for screening and decontamination of survivors
Description of the measure: State has a written radiological emergency plan that includes activation of centers for screening and decontamination of survivors; this measure provides a gauge of preparedness for a radiological or nuclear incident.				

Submitter			Recommendation	
Name	Title	Organization	Type	Measure Name
Juan Ruiz	Chief, Communicable Disease Emergency Response Program	California Department of Public Health	New measure	Adoption and meaningful use of electronic health records (EHR)
Description of the measure:				
The adoption of EHRs increases clinicians' awareness of potential medication errors and adverse interactions; improve the availability and timeliness of information to support treatment decisions; make it easier for clinicians to report safety issues and hazards; and give patients the opportunity to more efficiently provide input on data accuracy.				
Author and source of the measure (if different from Submitter):				
Office of the National Coordinator for Health Information Technology under the Department of Health and Human Services through the Health Information Technology for Economic and Clinical Health Act (HITECH). HITECH Act also provided economic incentives for eligible health care providers to adopt and meaningfully use certified EHR technology.				

Submitter			Recommendation	
Name	Title	Organization	Type	Measure Name
Jason Wilken	Epidemiologist	California Department of Public Health, Center for Chronic Disease Prevention and Health Promotion	New measure	Does the state have a standardized safety officer training and certification programs (e.g., National Fire Protection Association (NFPA) 1500; FEMA E954: All-Hazards Position Specific Safety Officer) for responders (fire, law, emergency medical services, hazmat, and public health).
Description of the measure:				
This measure intends to assess whether states have minimum requirements for training and certification of safety officers deployed during an incident for protection of fellow responders.				

Submitter			Recommendation	
Name	Title	Organization	Type	Measure Name
Mitchell Berger	Public Health	Submitting in personal capacity	New measure	State adoption of for monitoring public health responders
Author and source of the measure (if different from Submitter):				
<p>CDC, Office of Public Health and Emergency Response CDC required Public Health Emergency Preparedness grantees to report this measure: 'Has a 'registry' and/or similar tracking system been developed and/or utilized at the state level for monitoring public health responders, particularly for long-term or chronic health effect.' See Public Health Emergency Preparedness (PHEP) cooperative agreement (Budget Period 2 Performance Measures Specifications and Implementation Guidance At-a-Glance Summary, http://www.cdc.gov/phpr/documents/phep_bp2_pm_at-a-glance_v1_1.pdf)</p>				
Description of the measure:				
<p>The hazards to which emergency responders are exposed, both physical and psychological have been well-documented. See (e.g., Jennifer Yip et. al., World Trade Center-related physical and mental health burden among New York City Fire Department emergency medical service workers, Occupational and Environmental Medicine 2016;73:13-20; B. Reinbold, Emergency Responder Health: What Have We Learned from Past Disasters?, Environmental Health Perspective. 2010 Aug; 118(8): A346-A350;</p> <p>Such responders increasingly include volunteers as well, such as local fire/rescue/EMS agencies, animal response teams, community emergency response teams. Some jurisdictions have established registries to track long-term physical and mental impacts of responders but it does not appear all states have done so. CDC asked states to report on this measure as part of its Public Health Emergency Preparedness grants (Measures Specifications and Implementation Guidance At-a-Glance Summary, http://www.cdc.gov/phpr/documents/phep_bp2_pm_at-a-glance_v1_1.pdf).</p> <p>Monitoring outcomes for public health responders allows earlier recognition of conditions that may impact responders on whom the community depends during an emergency, fostering resilience. In addition, data may allow development or adoption of training programs, personal protective equipment and response practices that can reduce or mitigate future injuries/illness.</p>				